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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/822,860

04/13/2004

Koichi Matsuzaki

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EXAMINER

REDDIG, PETER J

ART UNIT

PAPER NUMBER

1642

MAIL DATE

DELIVERY MODE

11/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/822,860	Applicant(s) MATSUZAKI ET AL.	
	Examiner Peter J. Reddig	Art Unit 1642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-18 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Notice to Comply</u> . |

DETAILED ACTION

1. This application is in condition for allowance except for the following formal matters:

Specification

2. The specification is objected to for improper disclosure of amino acid sequences without a respective sequence identifier, i.e. a SEQ ID NO: see Figure 1, the last four amino acids on Smad2 and Smad3. Hence, the disclosure fails to comply with the requirements of 37 CFR 1.821 through 1.825. In the absence of a sequence identifier for each sequence, Applicant must provide a computer readable form (CRF) copy of the sequence listing, an initial or substitute paper copy of the sequence listing, as well as any amendment directing its entry into the specification, and a statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 CFR 1.821(e-f) or 1.825(b) or 1.825(d).

Failure to supply the appropriate sequences identification numbers in response to this action will be considered non-responsive.

3. The disclosure is objected to because of the following informalities: The specification refers to Table 8 on page 39 and there is no Table 8.

Appropriate correction is required.

Examiner's Amendment

4. During a telephone conversation conducted on November 7, 2007, Daniel A Geselowitz authorized the following Examiner's Amendment.

5. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R.

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1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee.

6. The Amendment filed October 2, 2007 in response to the Office Action of September 19, 2007 is acknowledged and has been entered. Previously pending claims 1, 4, 5, and 7-12 have been cancelled and claims 3 and 6 have been amended. Claims 71-75 have been added. Claims 3, 6, 13, and 14 are pending. Claim 6 was previously withdrawn from consideration.

7. Claims 3, 13, and 14 are currently under consideration.

8. The application has been amended as follows:

i. Claims 3, 6, 13, and 14 were cancelled.

ii. New claims 15-18 were added:

Claim 15 (new). A polyclonal antibody specific for a phosphorylated linker region in Smad2, obtained from antiserum raised by immunizing a mammal with a phosphorylated product of a peptide including an amino acid sequence in the linker region of Smad2, wherein the phosphorylated product of a peptide including the amino acid sequence in the linker region of Smad2 for the immunization is: Pro Ala Glu Leu p-Ser Pro Thr Thr Leu p-Ser Pro Val Asn His Ser (SEQ ID NO: 1) wherein p-Ser represents phosphorylated serine.

Claim 16 (new). A polyclonal antibody specific for a phosphorylated linker region in Smad3, obtained from antiserum raised by immunizing a mammal with a phosphorylated product of a peptide including an amino acid sequence in the linker region of Smad3, wherein the phosphorylated product of a peptide including the amino acid sequence of the linker region of Smad3 for the immunization is: Ala Gly Ser Pro

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Asn Leu p-Ser Pro Asn Pro Met p-Ser Pro Ala (SEQ ID NO 2) wherein p-Ser represents phosphorylated serine.

Claim 17 (new). The polyclonal antibody according to claims 15 or 16, wherein the mammal is a rabbit.

Claim 18 (new). The polyclonal antibody according to claims 15 or 16, wherein the raised antiserum is affinity purified with a phosphorylated peptide(s).

9. Authorization for this Examiner's Amendment was given in a telephone interview with Daniel A Geselowitz on November 7, 2007.

10. Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

11. A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J. Reddig whose telephone number is (571) 272-9031. The examiner can normally be reached on M-F 8:30 a.m.-5:00 p.m.

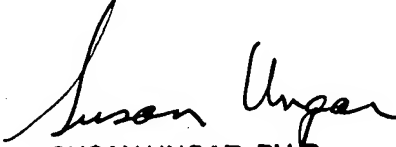
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shanon Foley can be reached on (571) 272-0898. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Peter J. Reddig
Examiner
Art Unit 1642



SUSAN UNGAR, PH.D
PRIMARY EXAMINER

PJR